

FIG. 1A

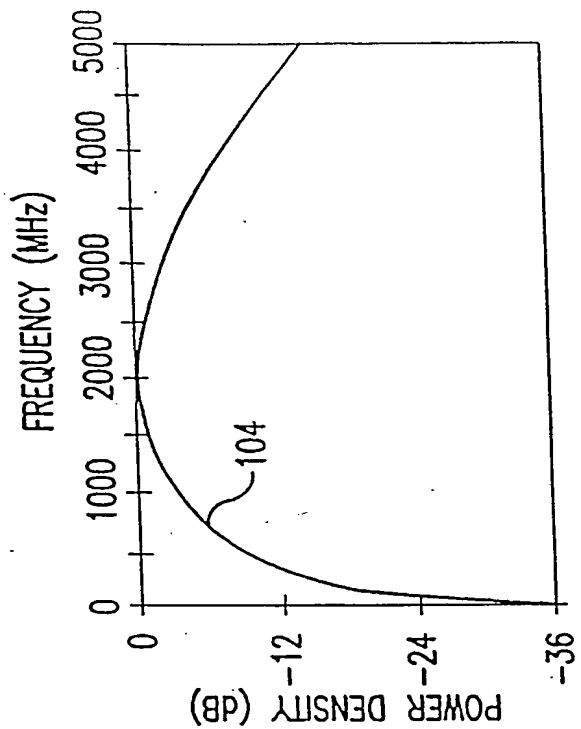


FIG. 1B

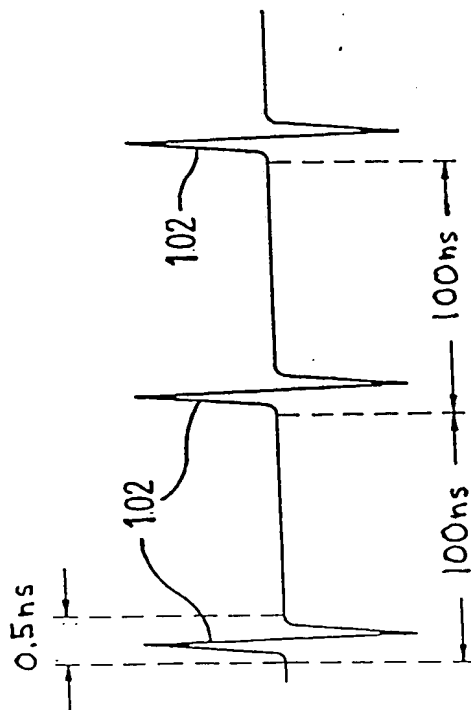


FIG.2A

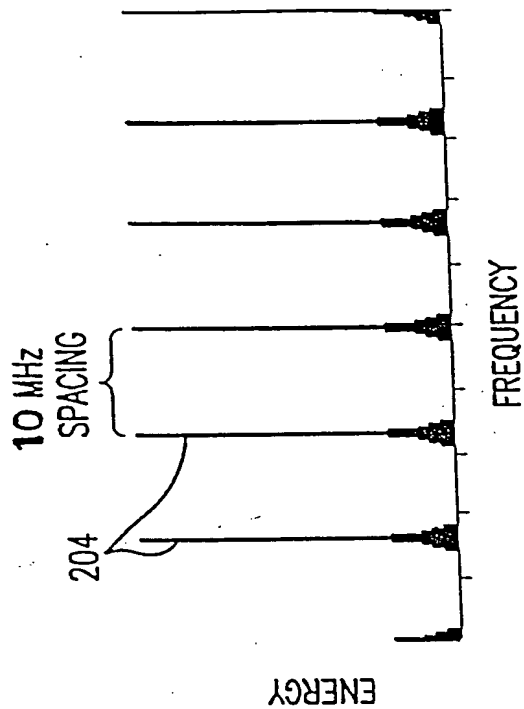


FIG.2B

006250"2697560

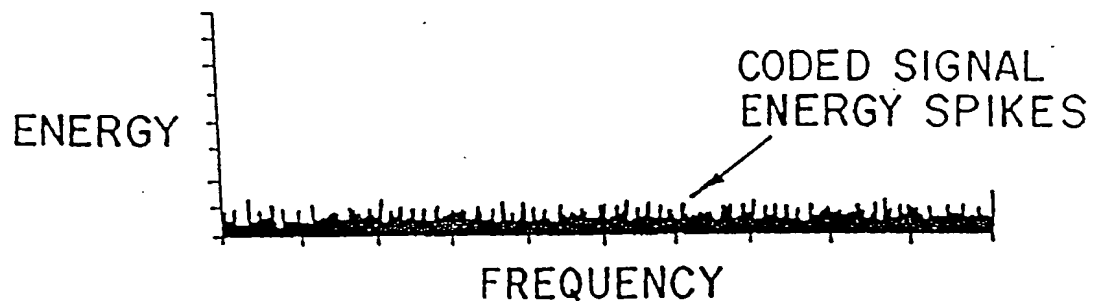


FIG. 3

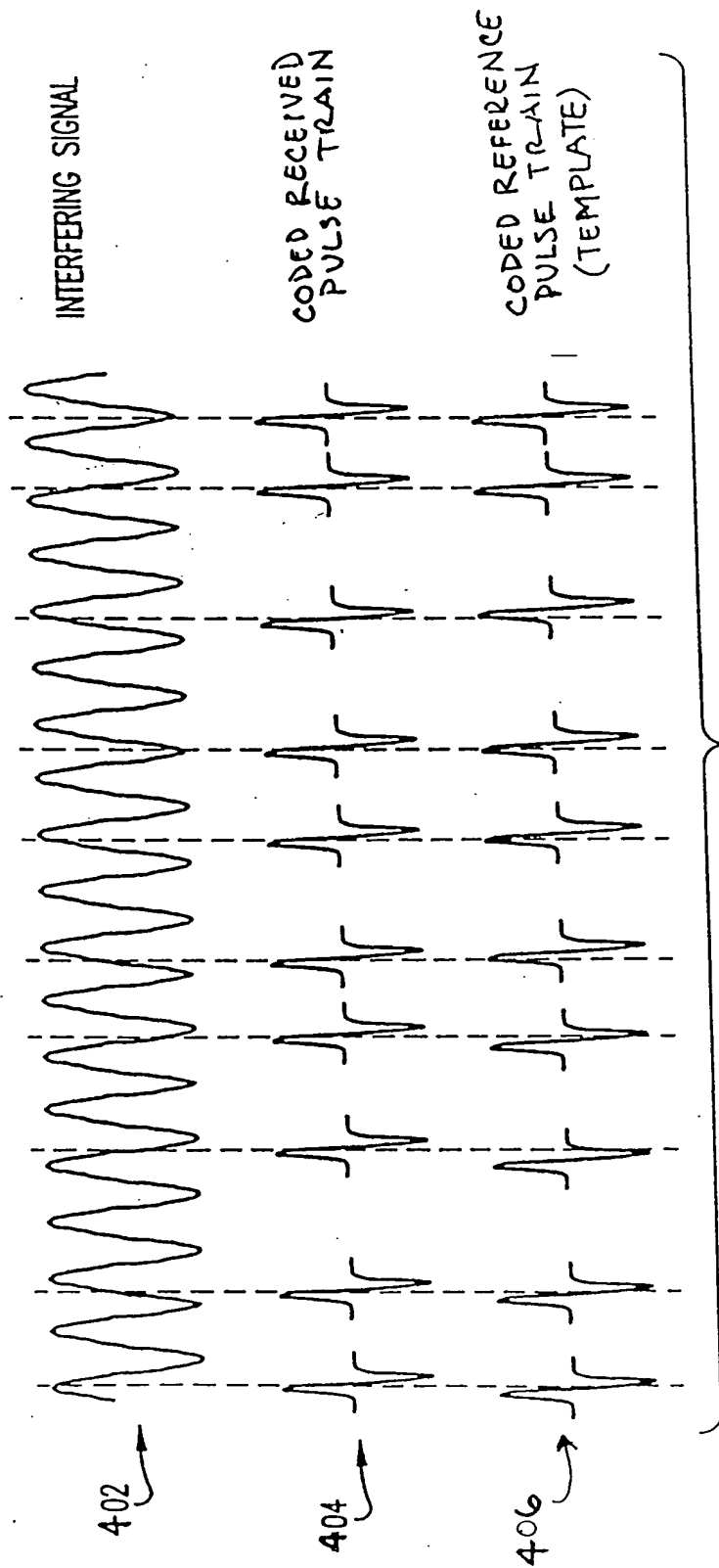


FIG. 4

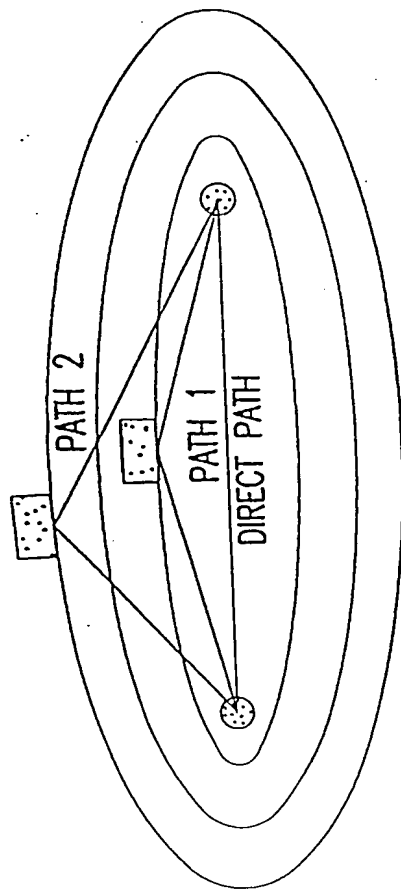


FIG.5A

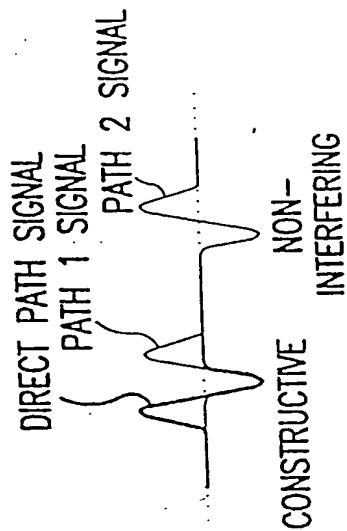


FIG.5B

FIG. 7

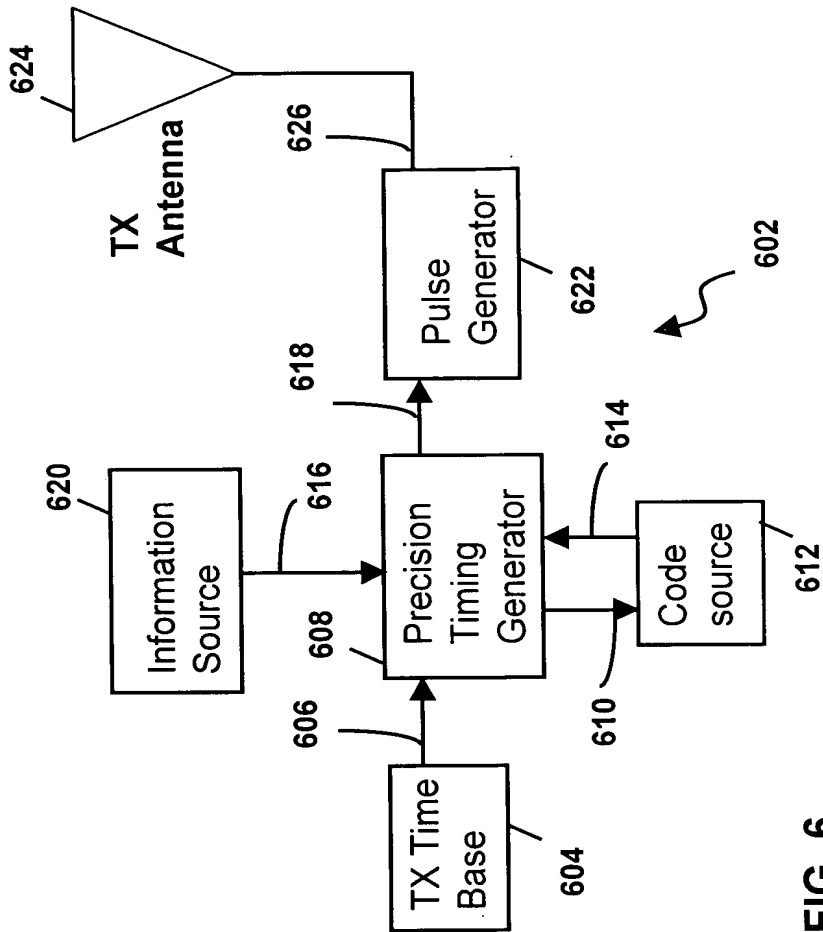
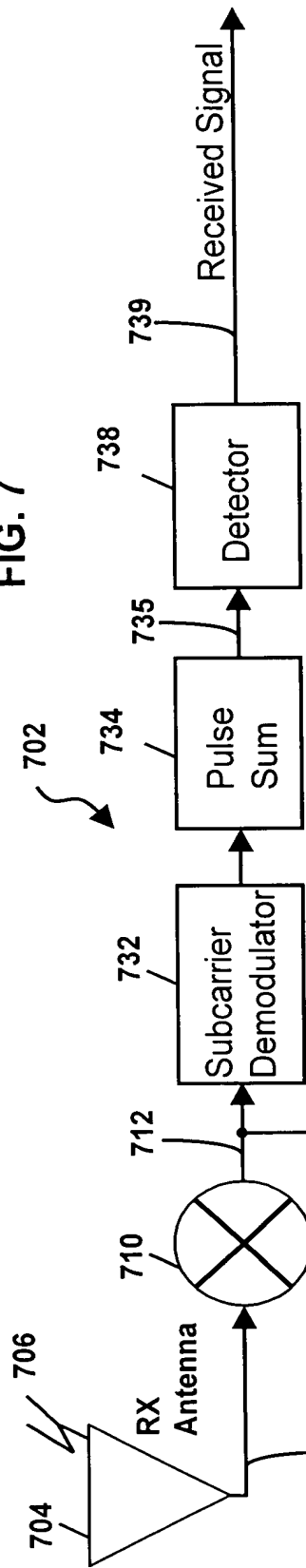
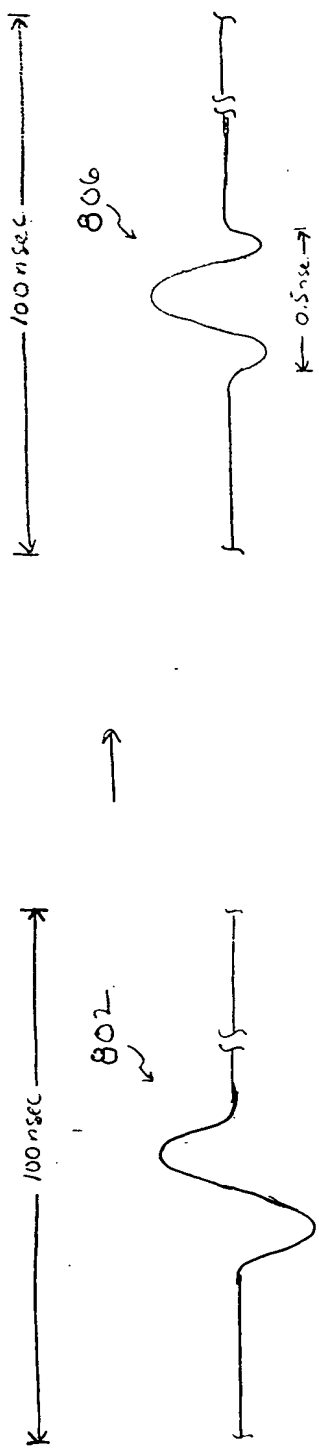
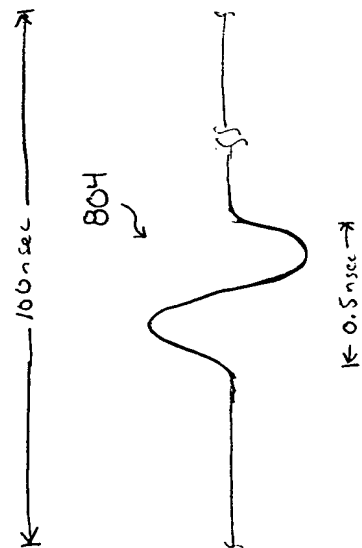


FIG. 6

006220" 2694E560



TRANSMITTED SIGNALS



RECEIVED SIGNALS

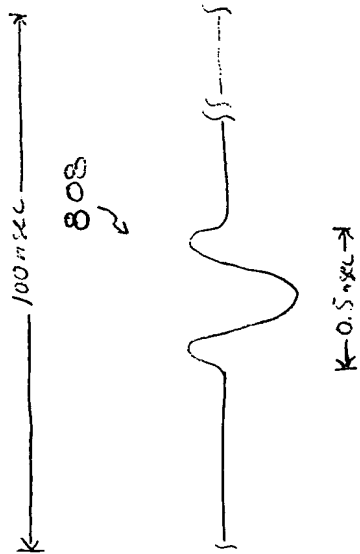
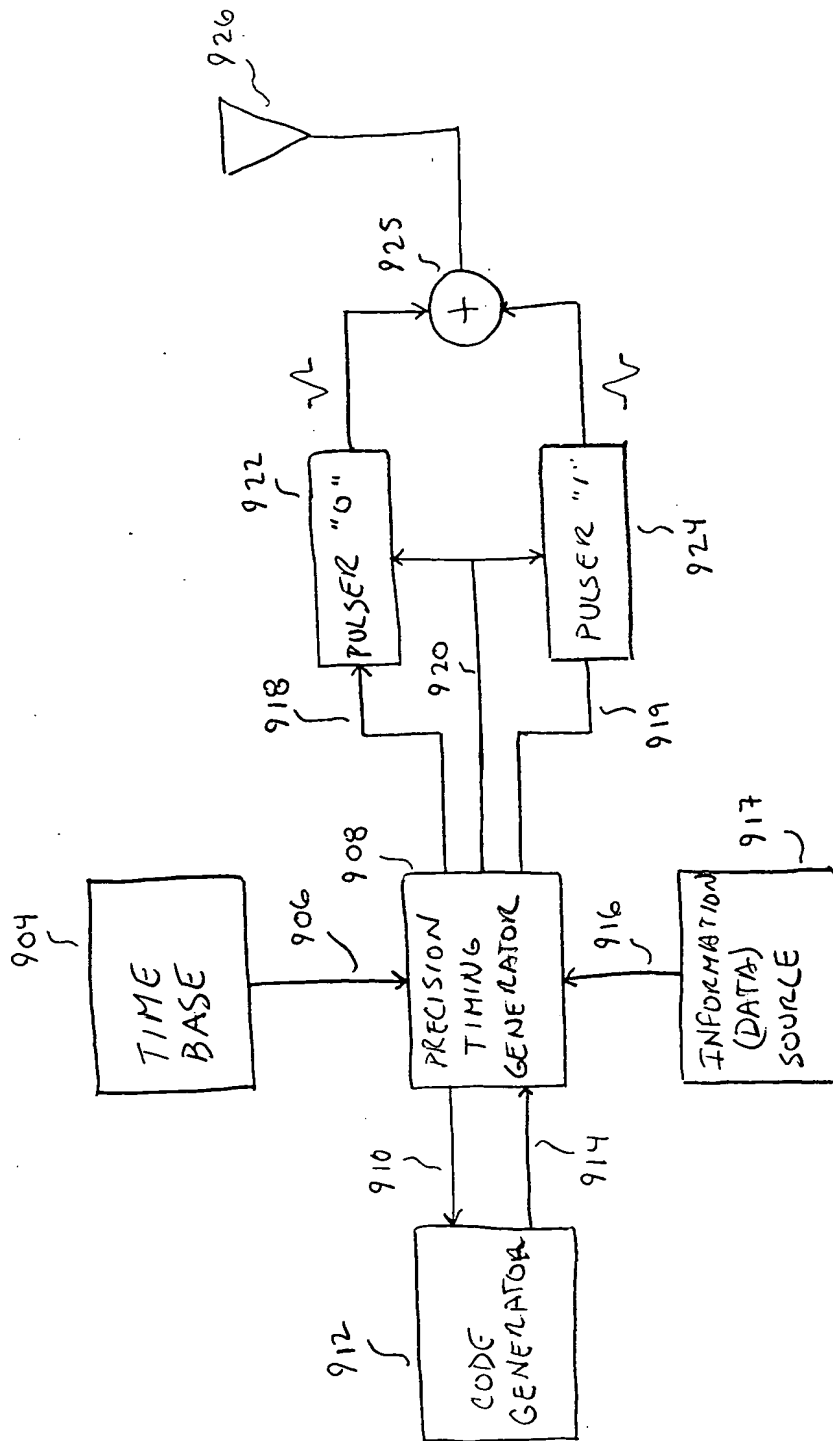


FIG. 8



TRANSMITTER 902

FIG. 9

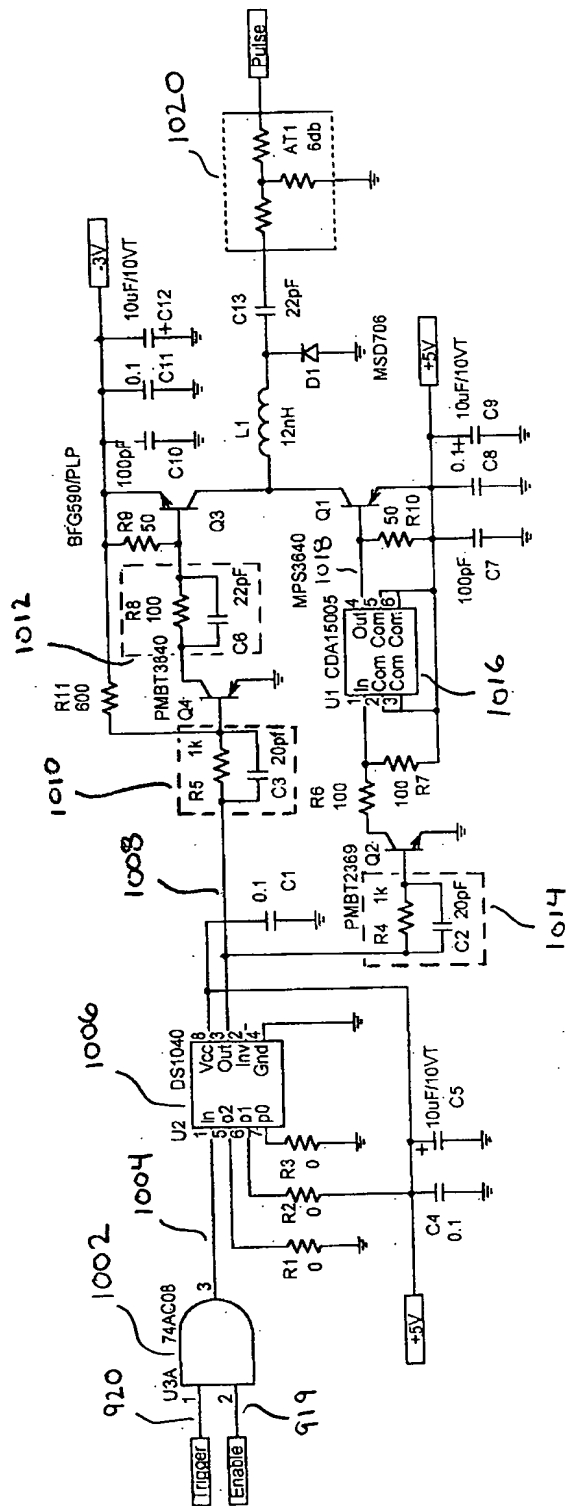


FIG. 10A

006280" 2694E560

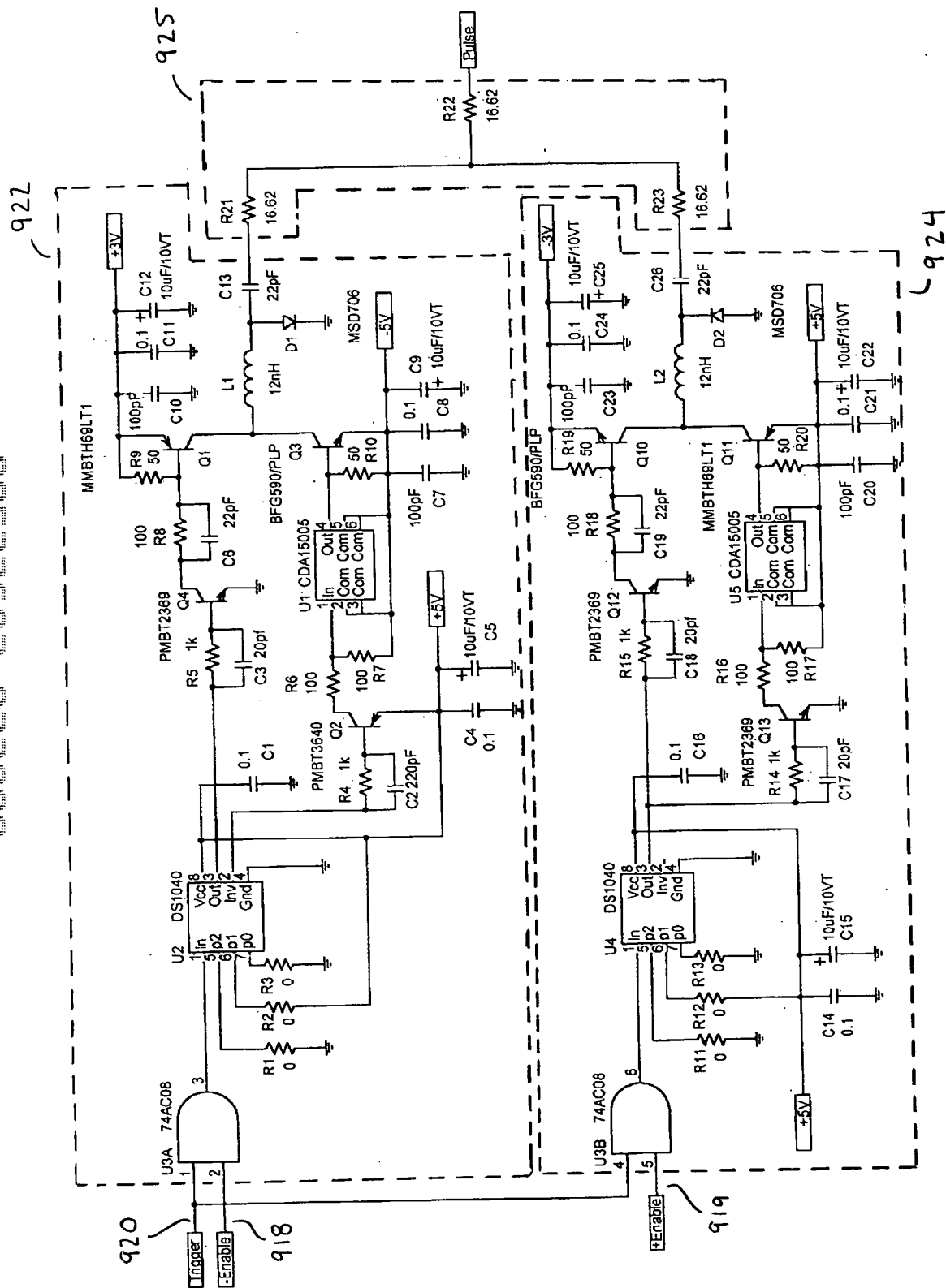


FIG. 12

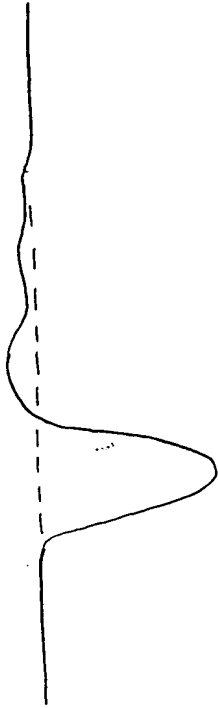
1322a



FIG. 13

006220" 2594E560

1402
↘



1404
↘

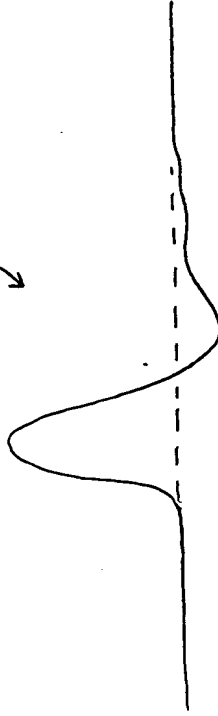


FIG. 14



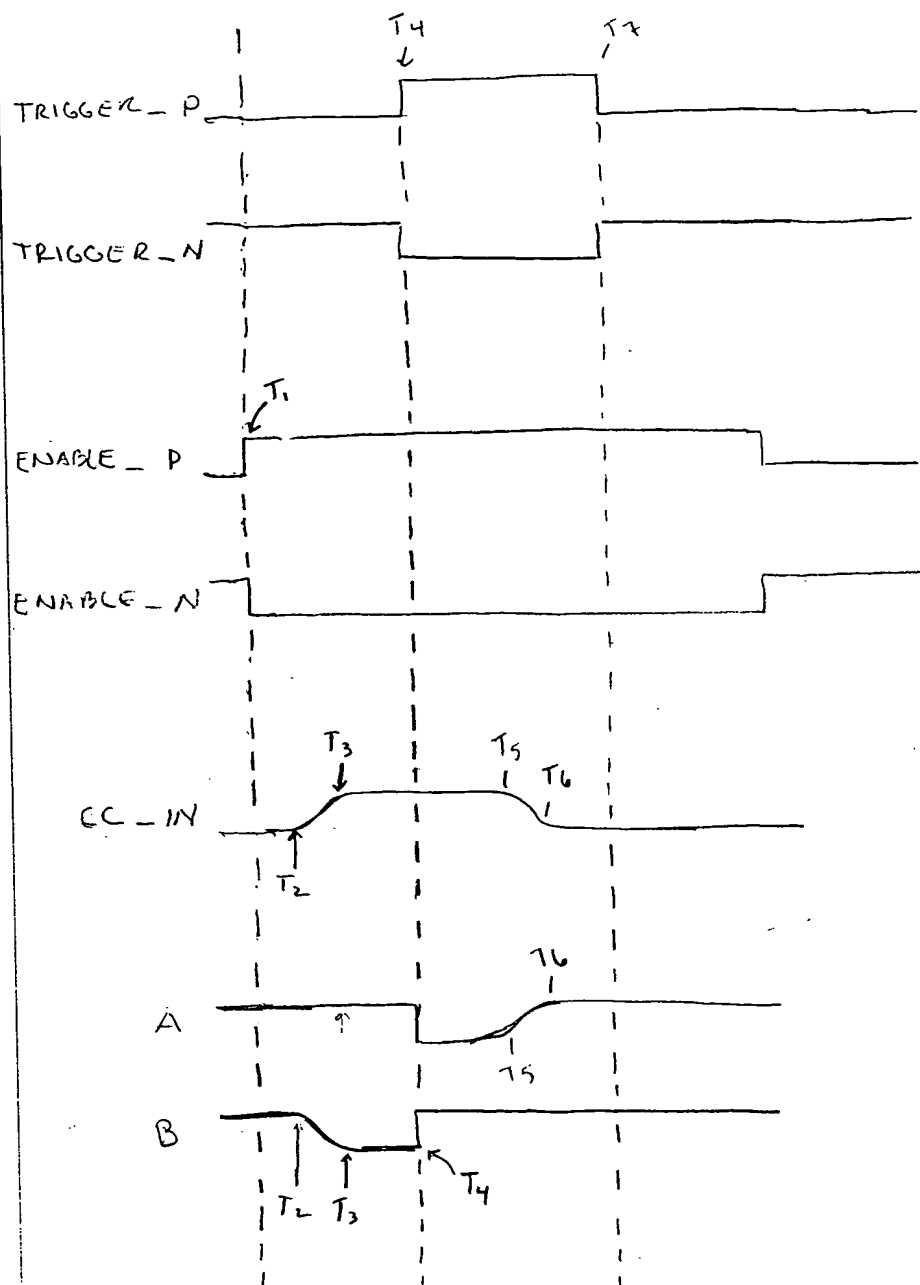
[illegible]

FIG 16A

Figure 10 shows the results of the sensitivity analysis. The results indicate that the model is most sensitive to the input parameters related to the initial conditions, such as the initial concentration of the pollutant and the initial velocity of the flow. The model is also sensitive to the input parameters related to the physical properties of the pollutant, such as the diffusion coefficient and the degradation rate. The results also show that the model is less sensitive to the input parameters related to the geometry of the system, such as the length and width of the channel. The results of the sensitivity analysis can be used to identify the most important input parameters and to optimize the model for different applications.

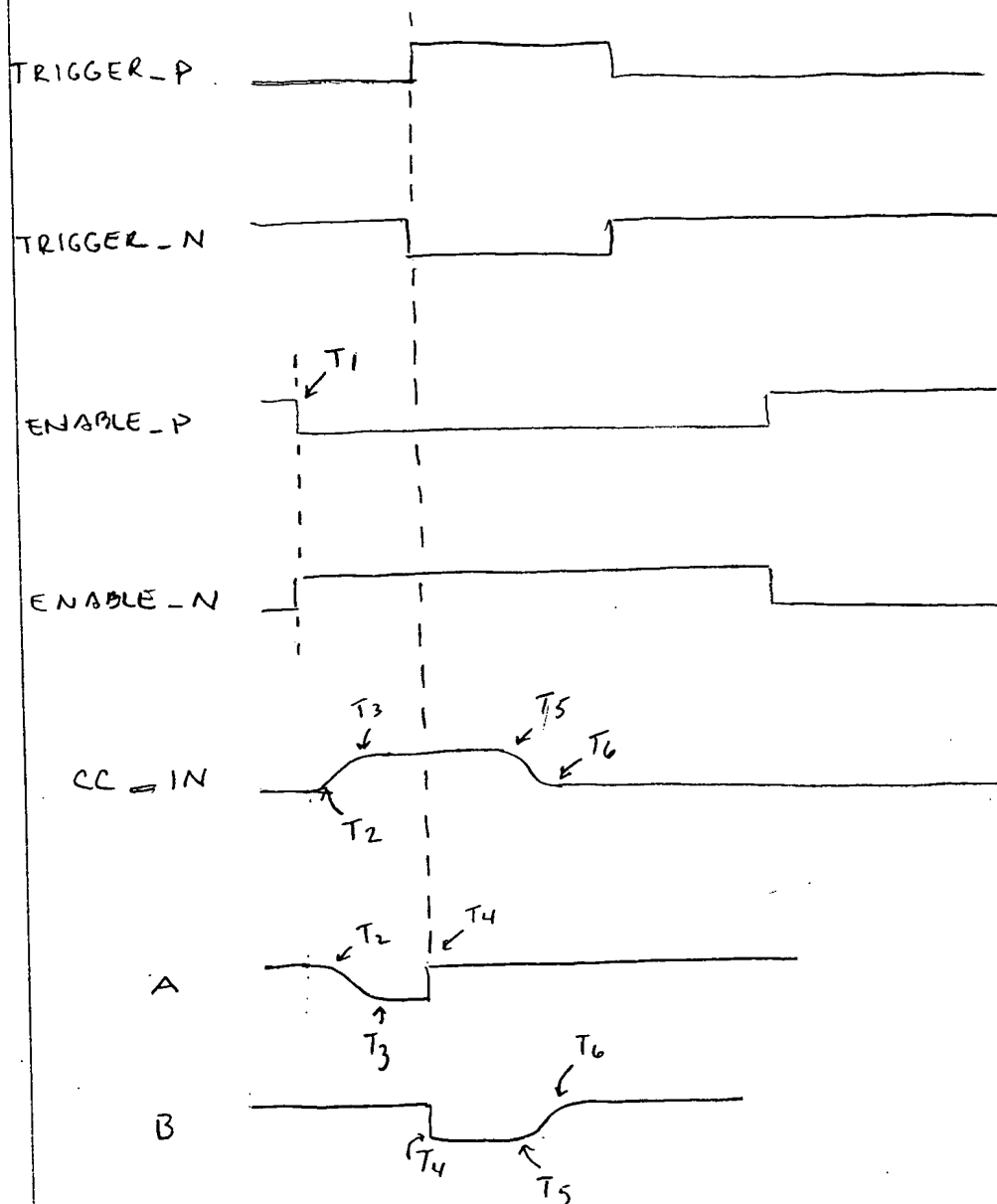
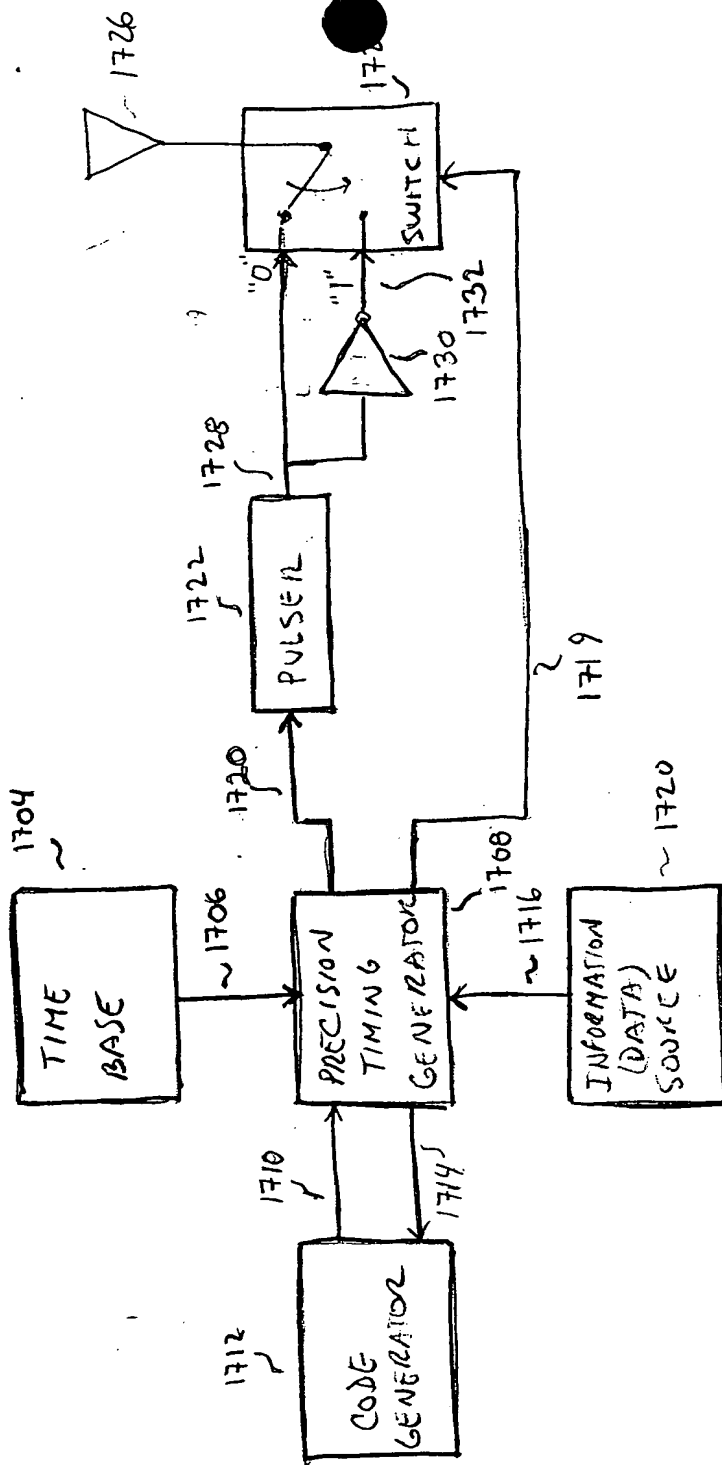


FIG 16B



TRANSMITTER 1702

FIG 17

RECEIVER 1802

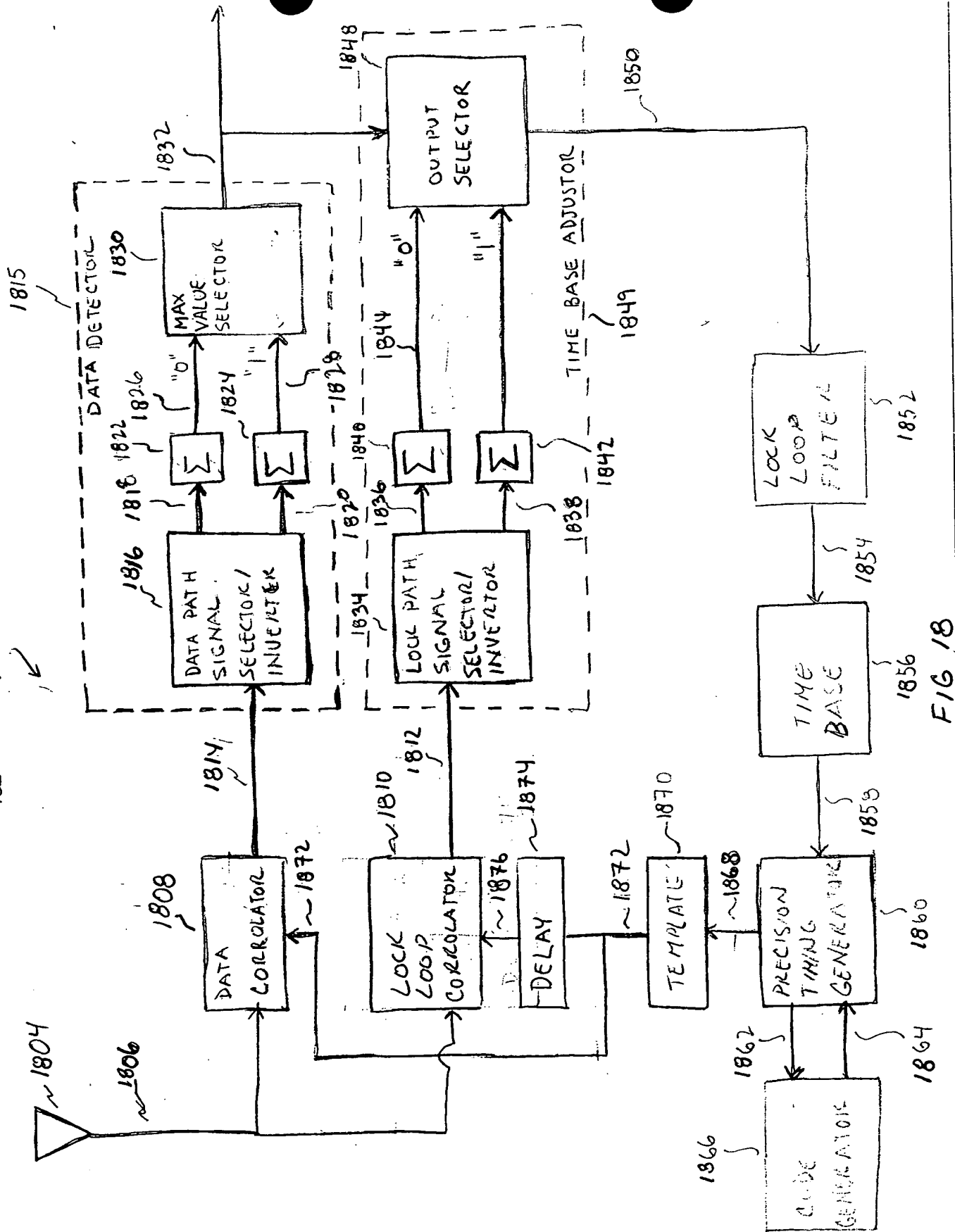


FIG. 18

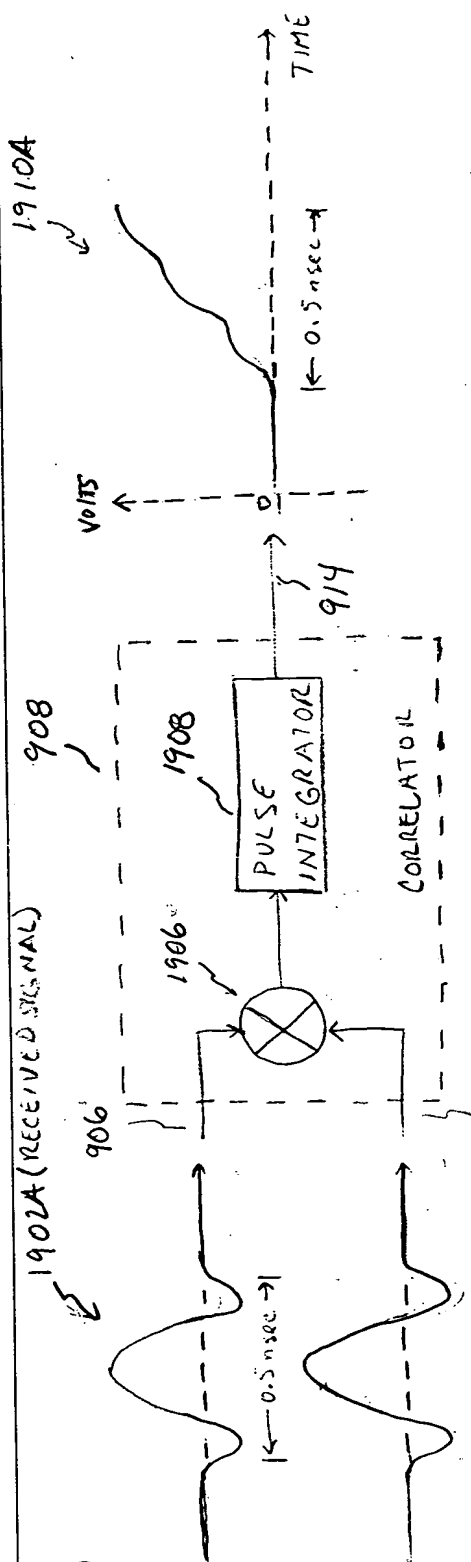


FIG. 19A

1904A (TEMPLATE SIGNAL) 972

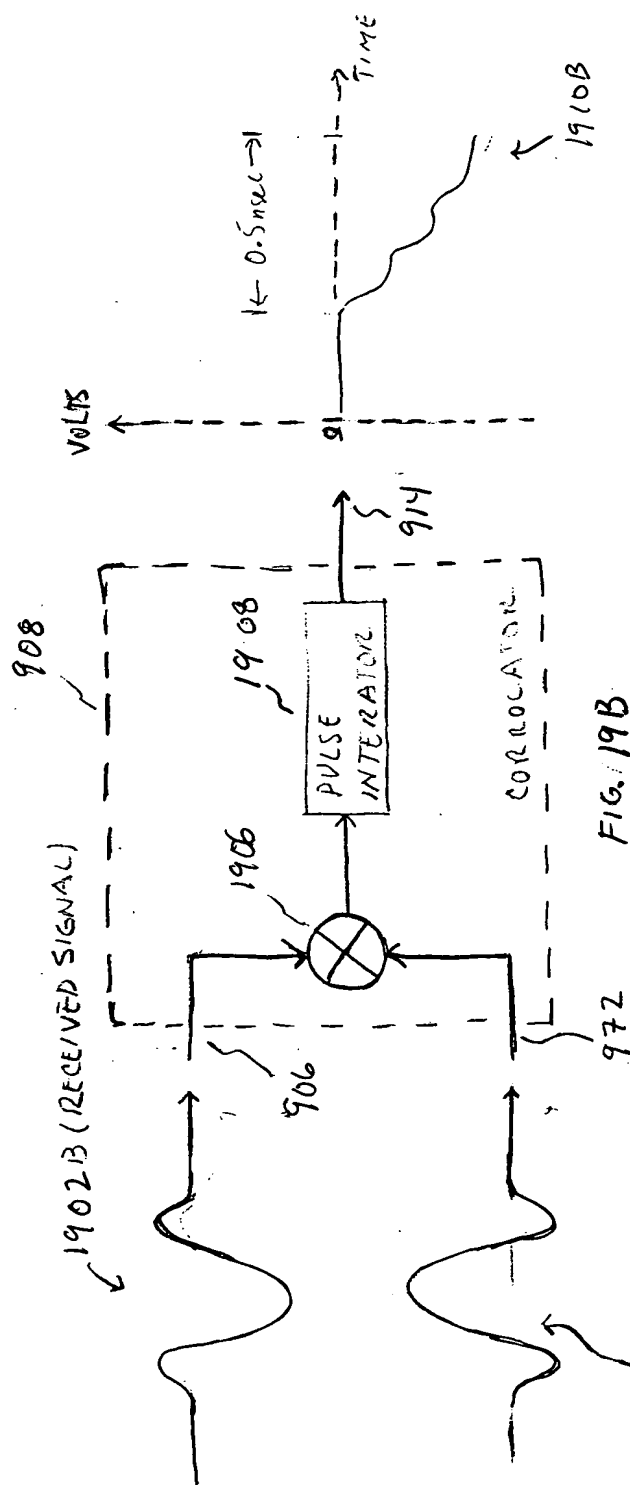
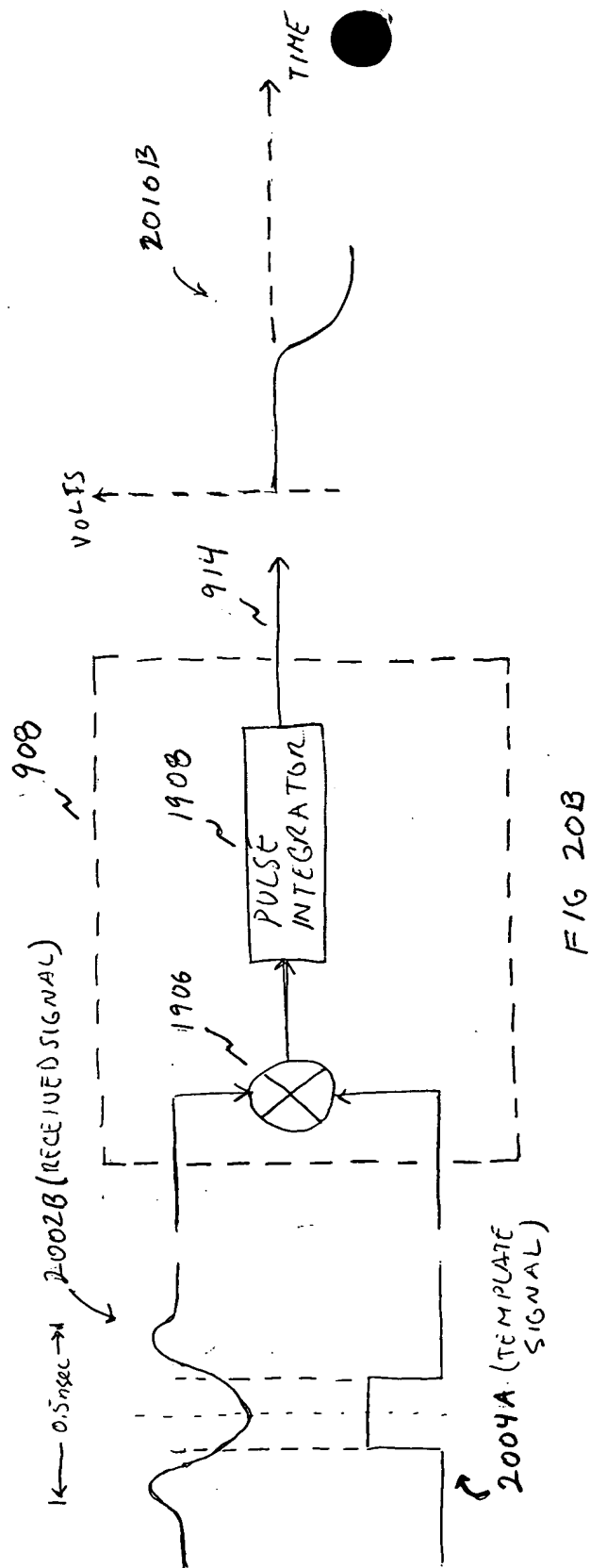
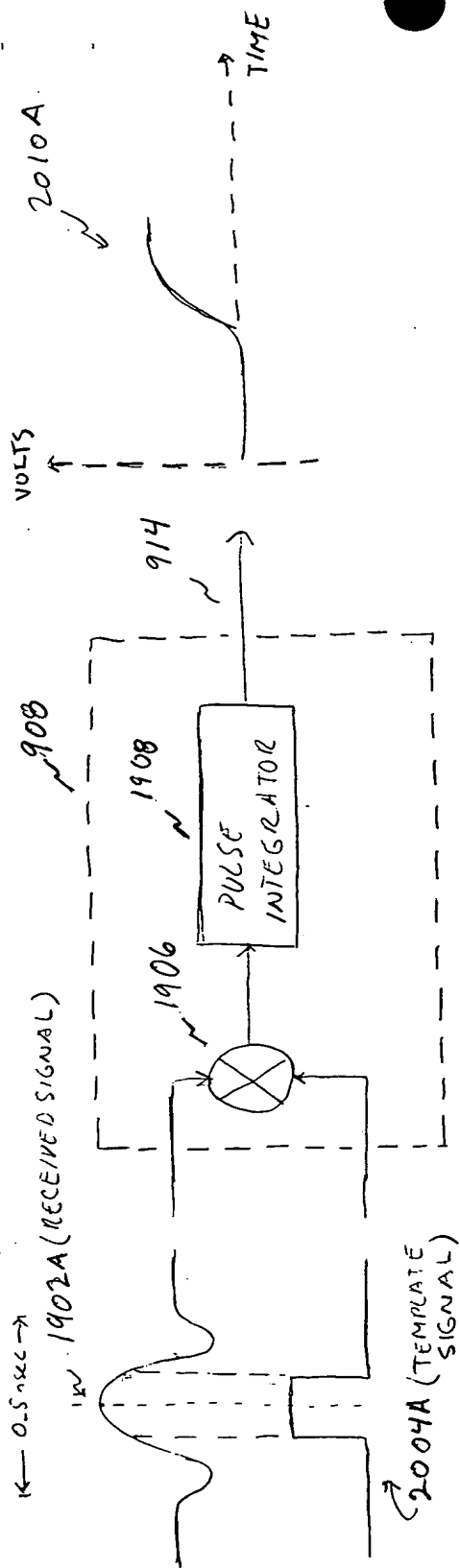


FIG. 19B

1904B (TEMPLATE SIGNATURE)



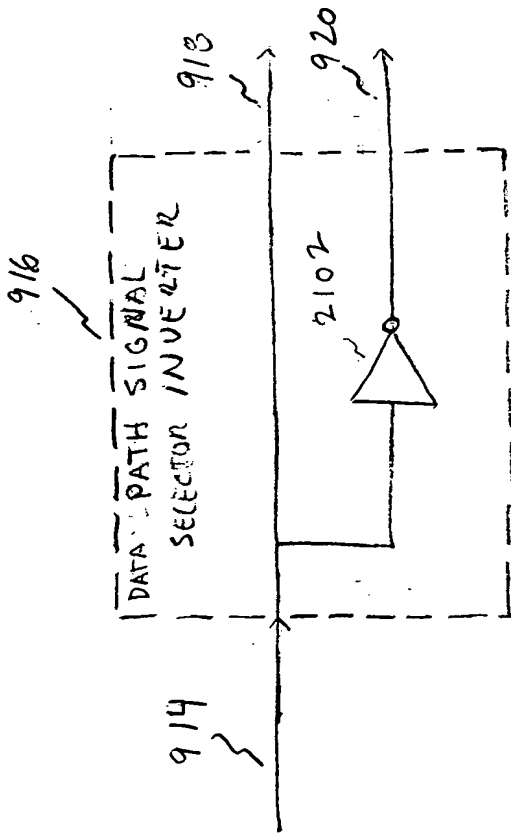


FIG 21

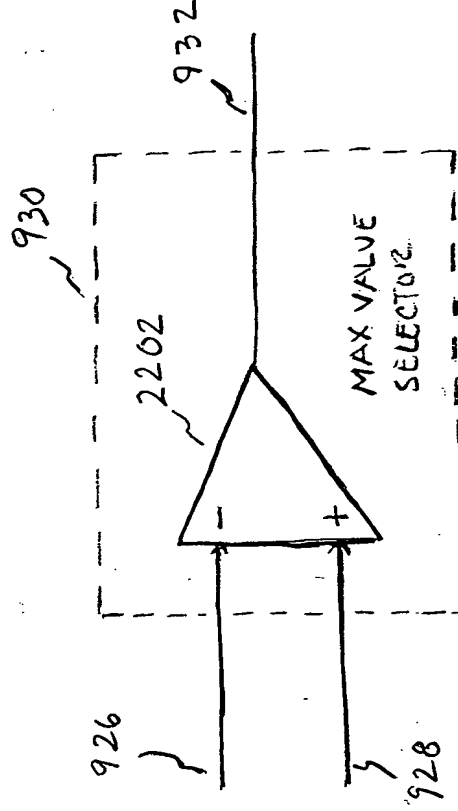


FIG 22

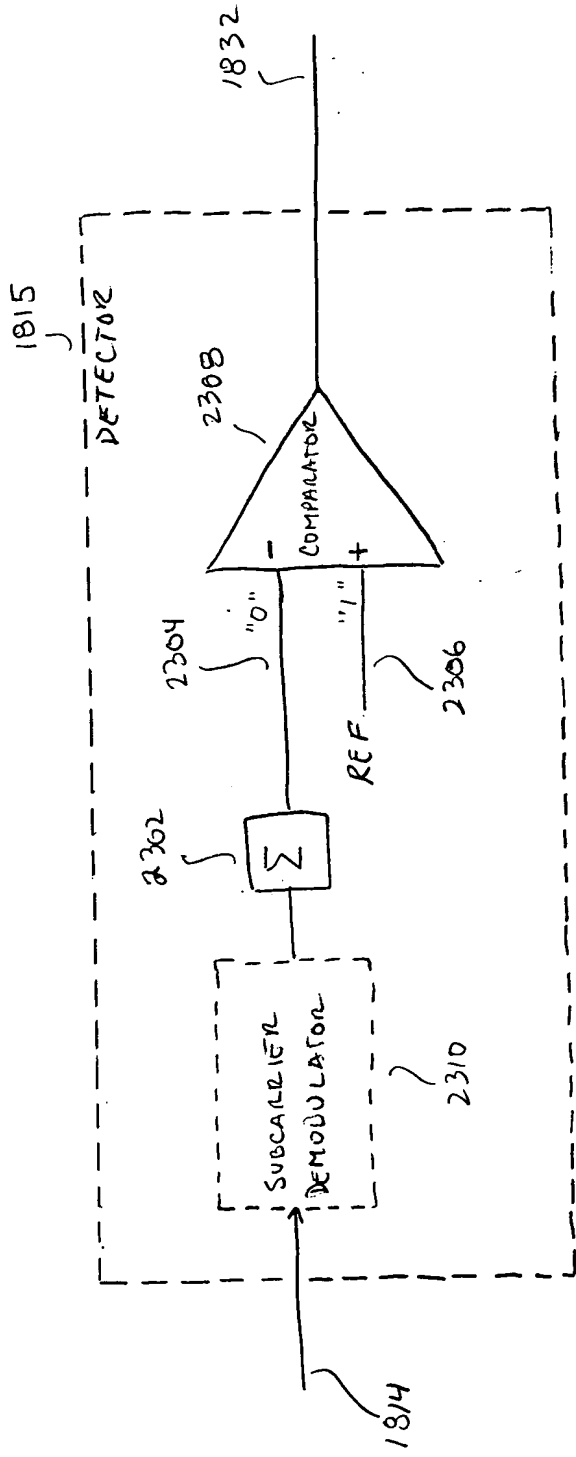


FIG 23

FROM MAX
VALUE SELECTOR

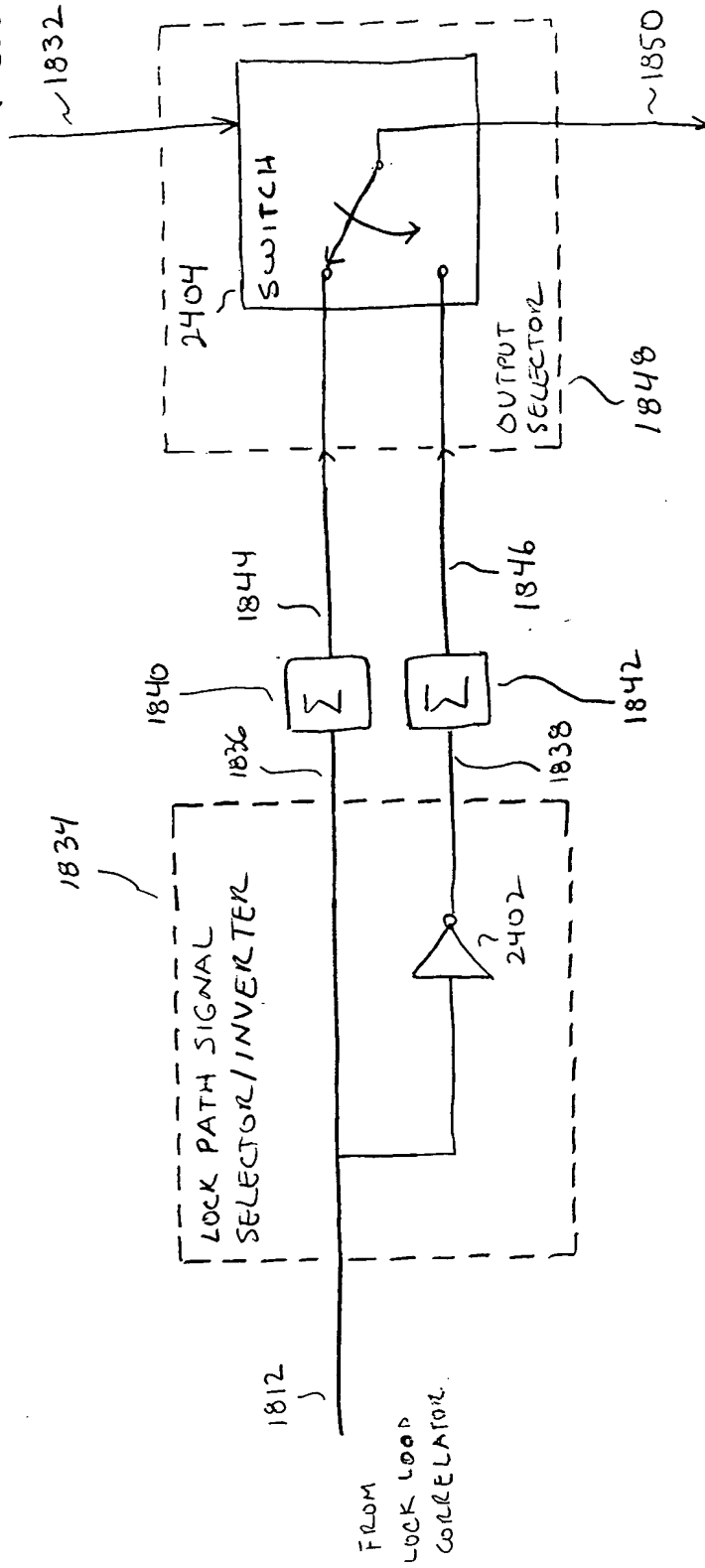


FIG. 24

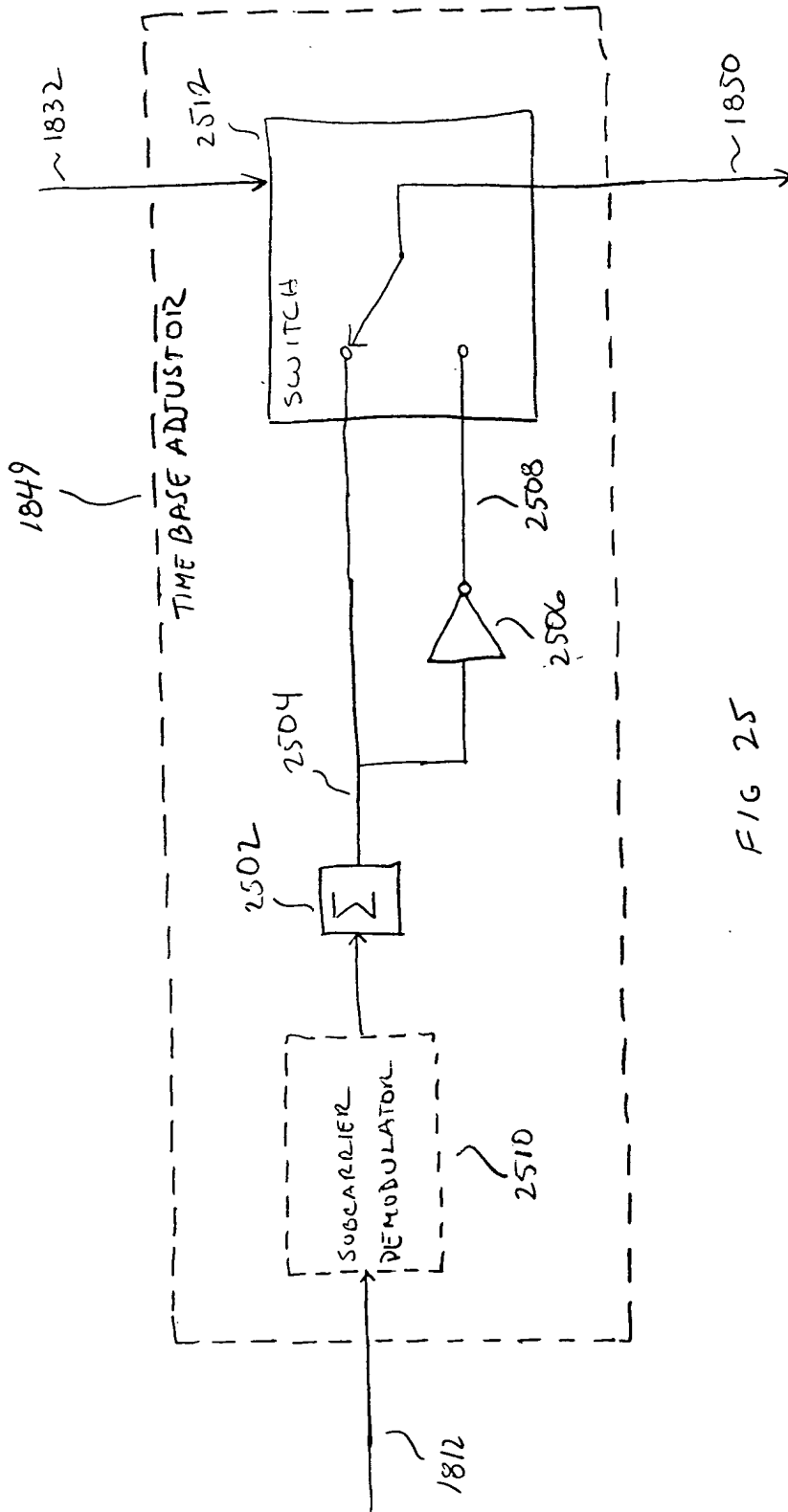


FIG 25

006220" 2692550

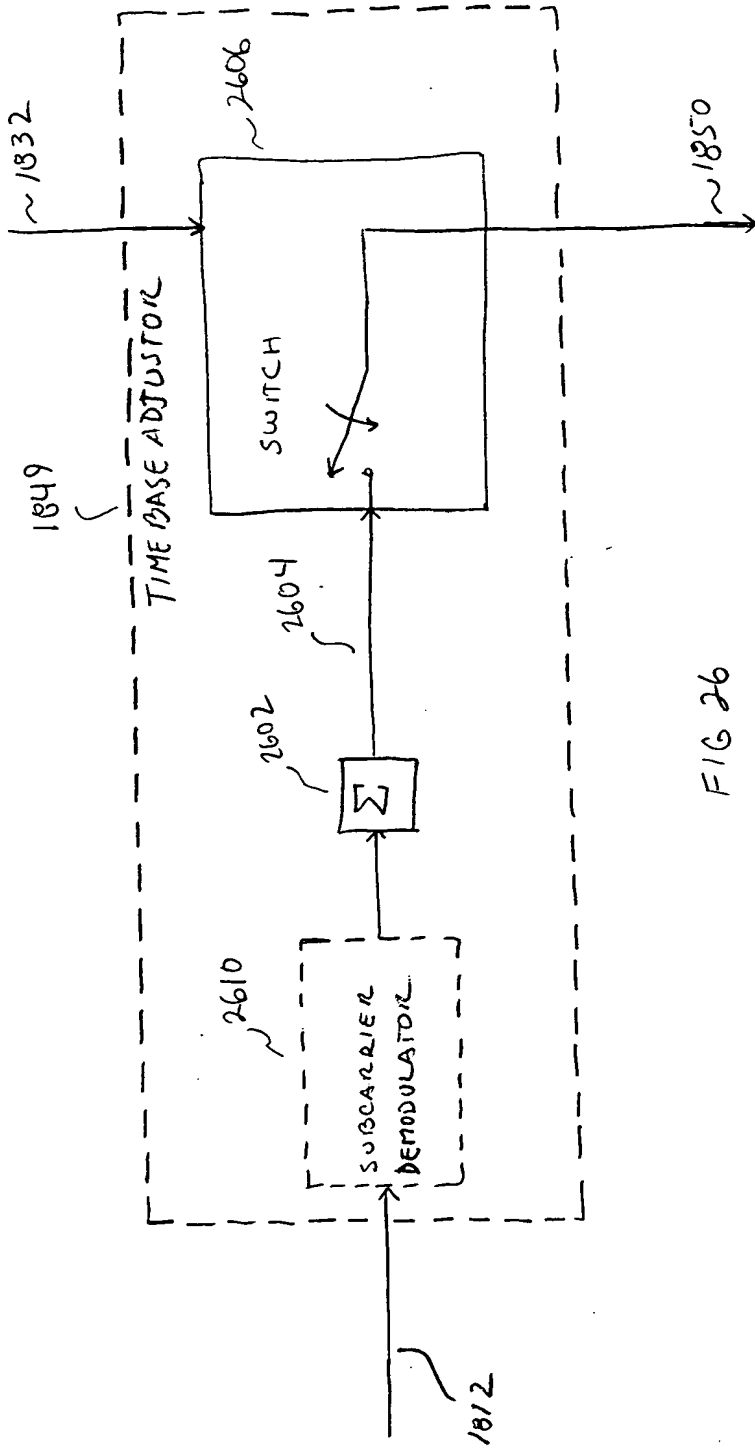


FIG 26

0052ED" 2694E560

FRAME 1

FRAME 2

FRAME 3

FRAME 4

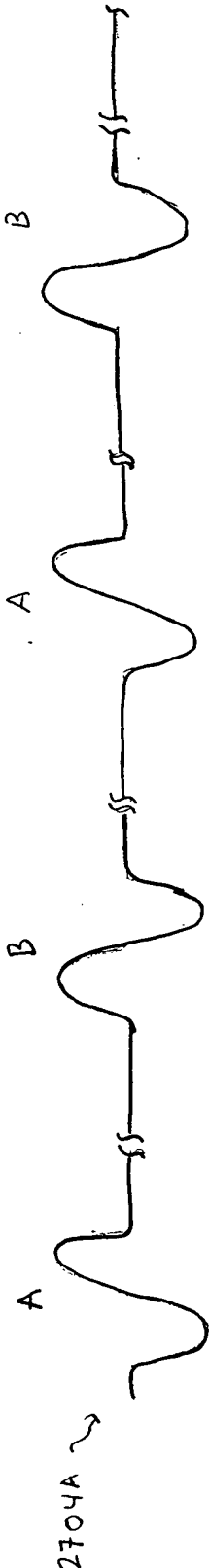
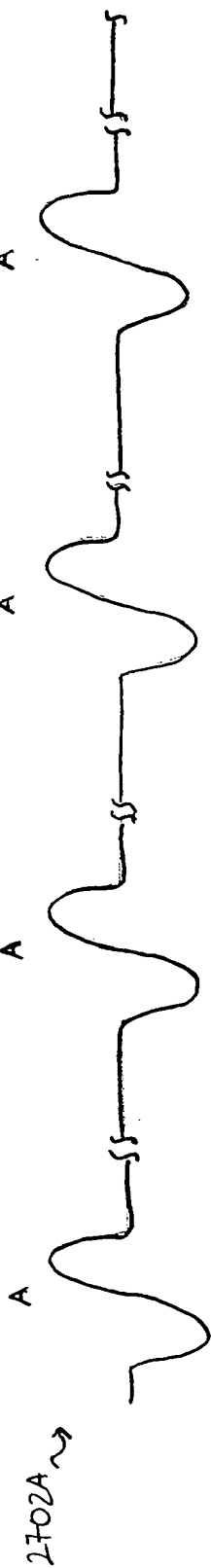


FIG 27A

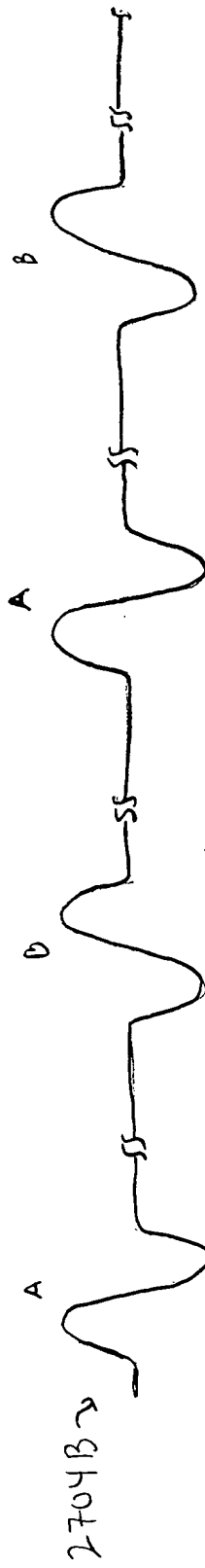
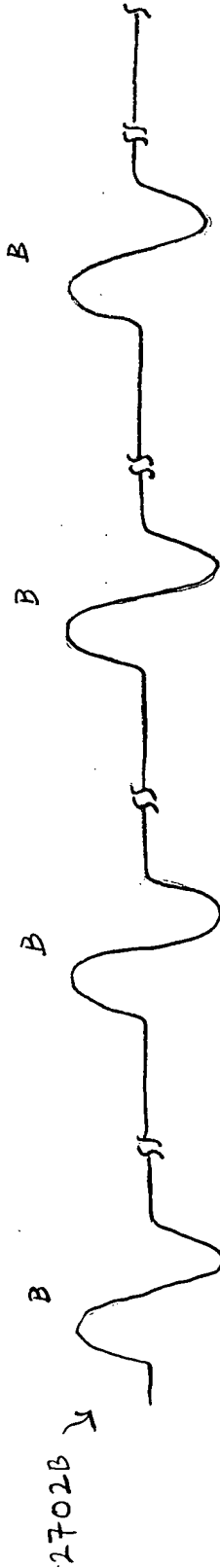
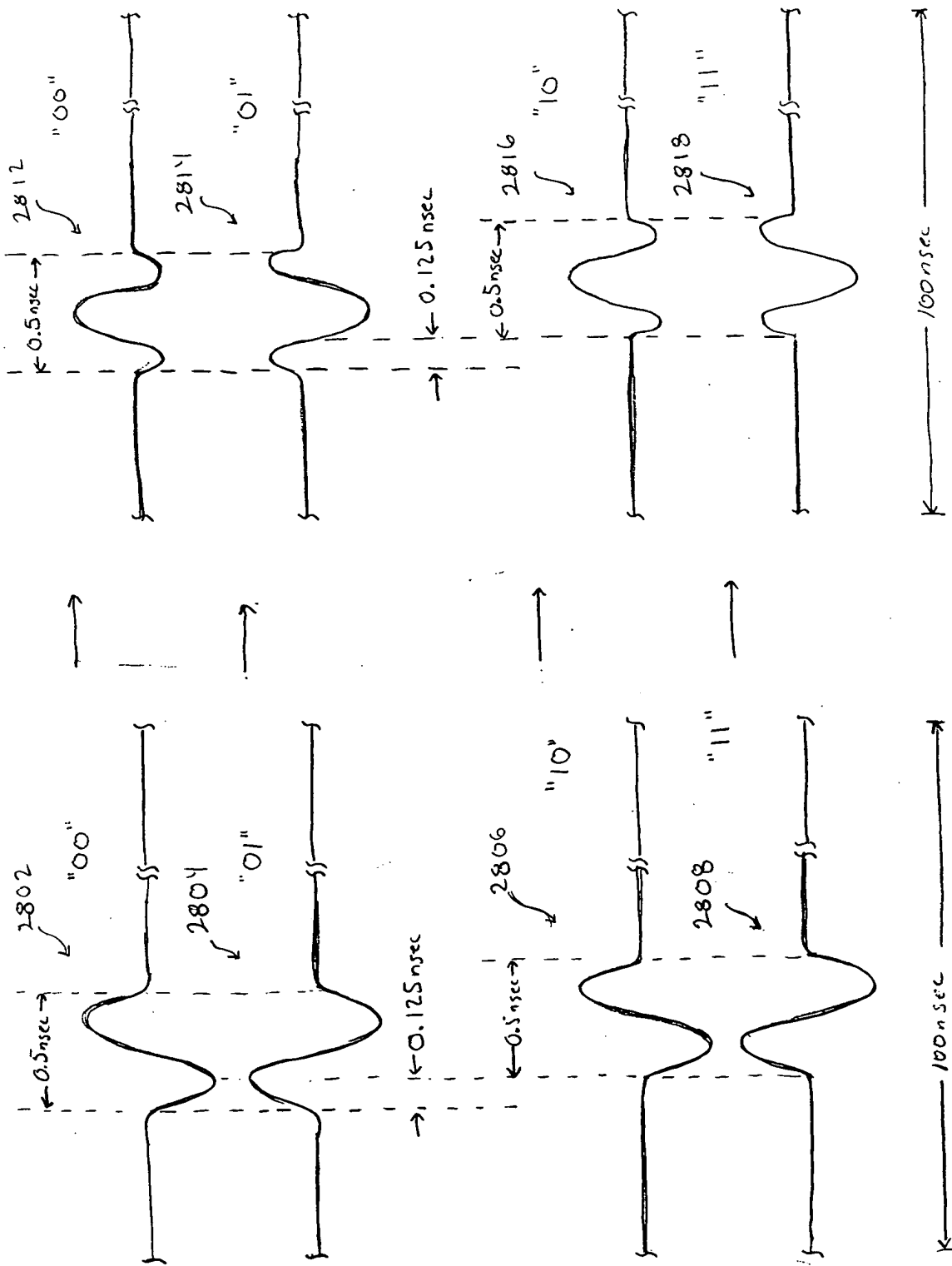


FIG 27B



RECEIVED SIGNALS

TRANSMITTED SIGNALS

FIG 28

RECEIVER 29022
2692350

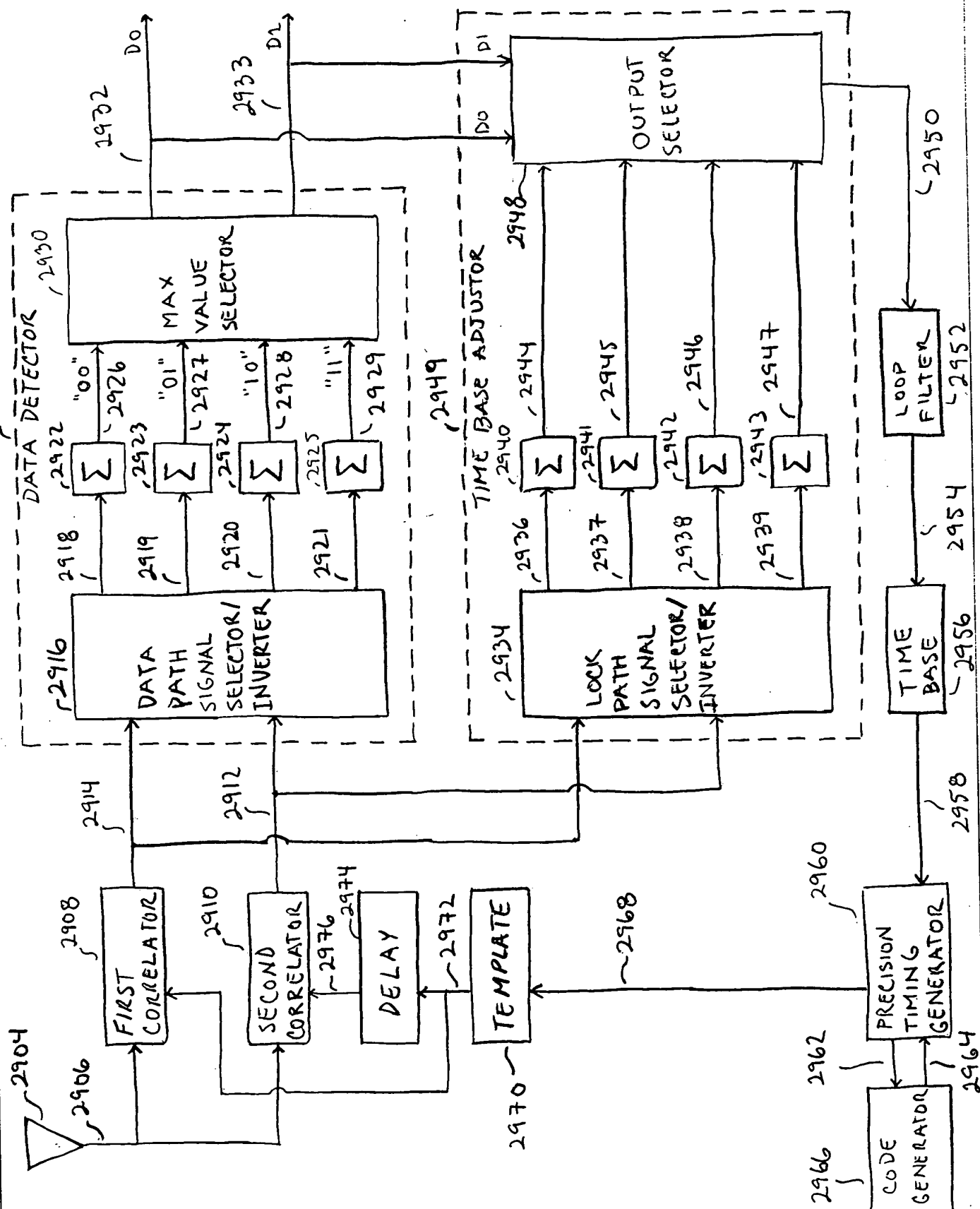
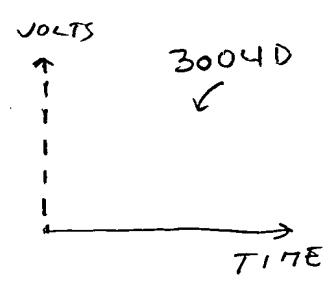
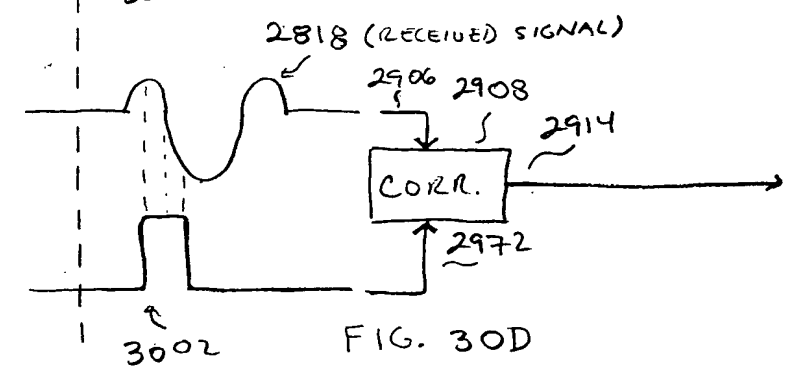
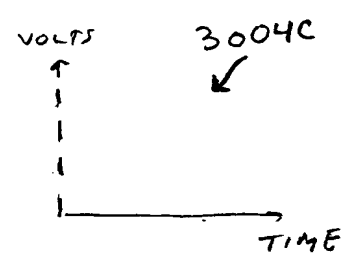
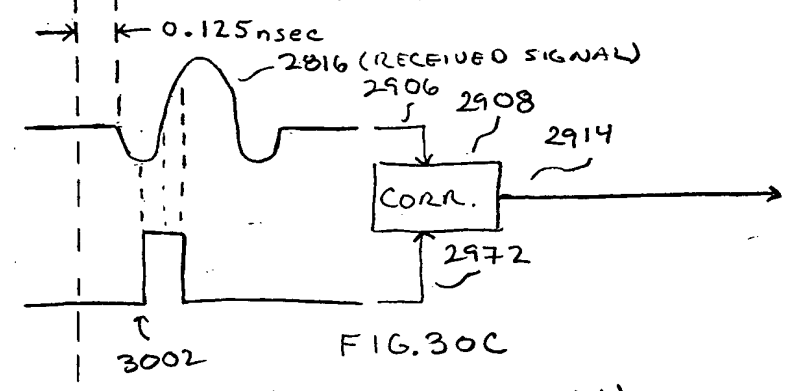
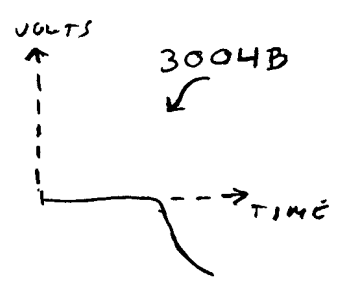
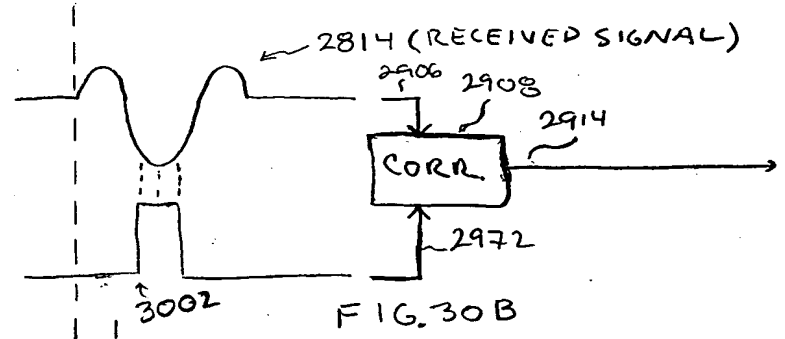
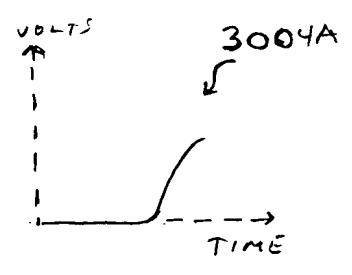
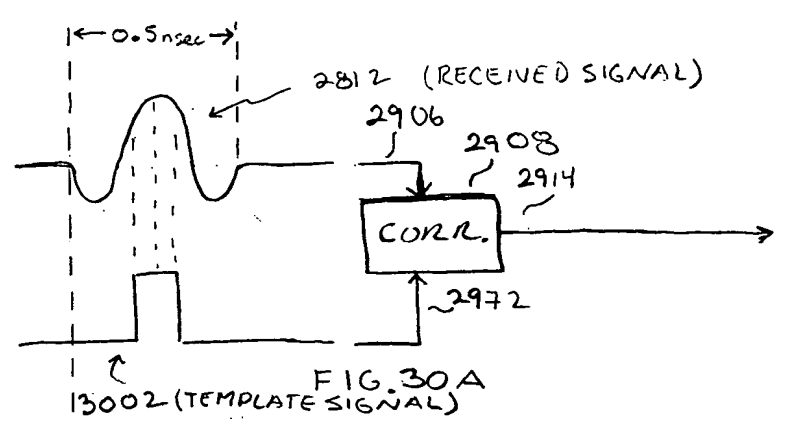


FIG. 29

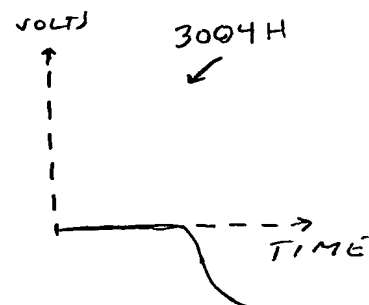
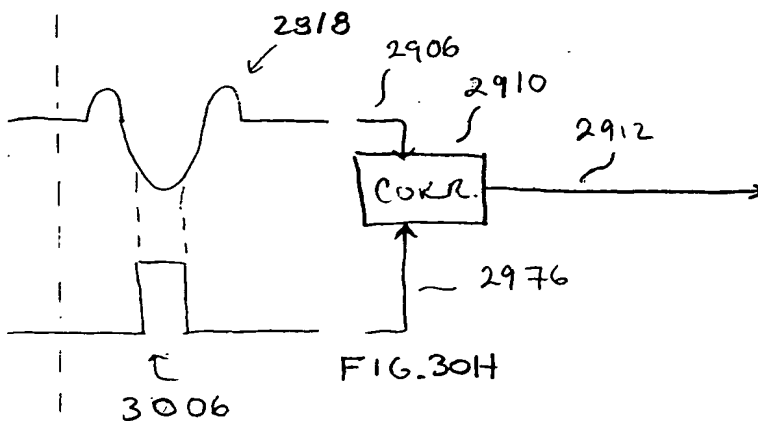
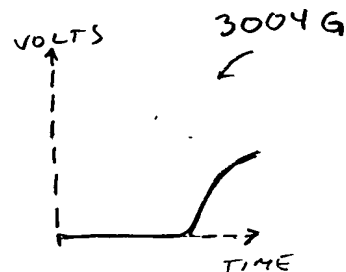
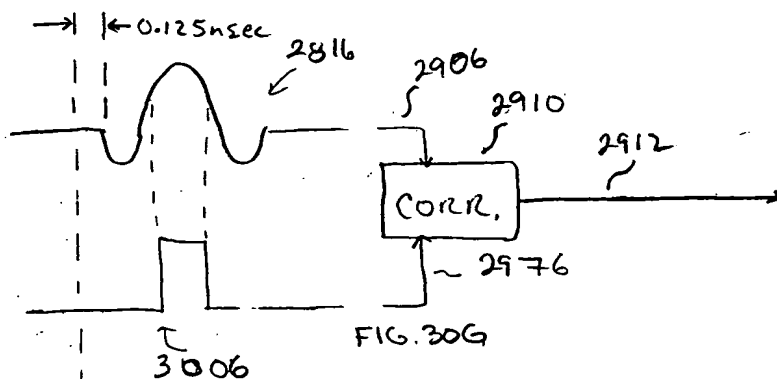
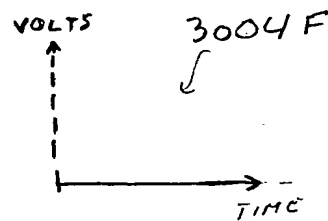
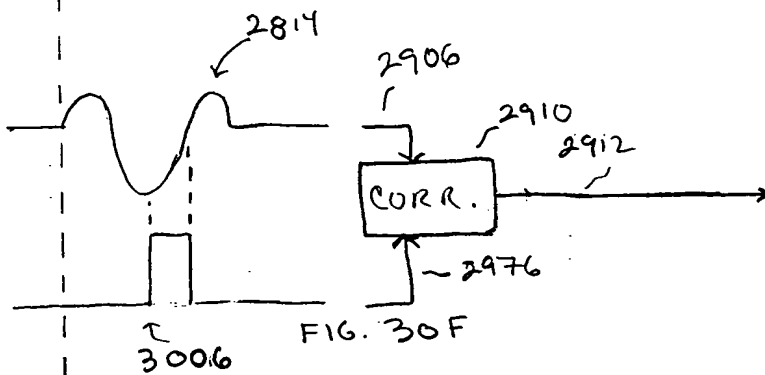
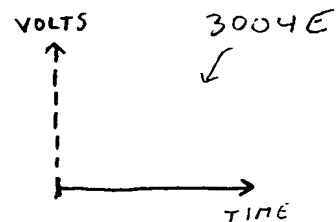
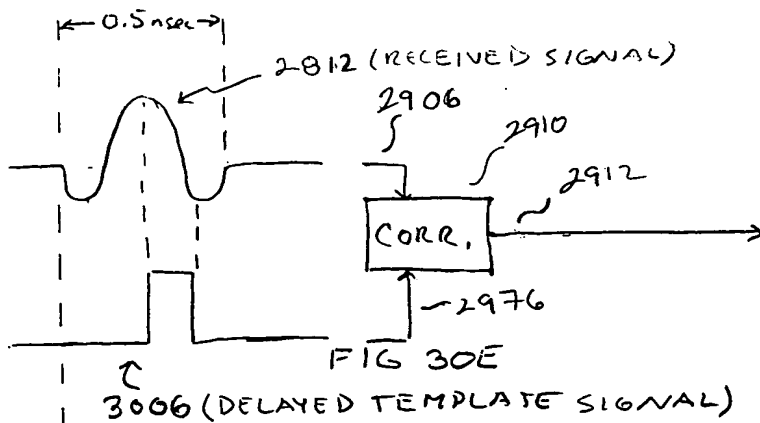
INVENTOR: HERMAN HILFELING, JR. 2929
ATTORNEY: HERMAN HILFELING, JR. 2929

4250P 100% RECYCLED WHITE SQUARE
4250P 100% RECYCLED WHITE SQUARE
MADE IN U.S.A.

006220" 2694550



006220" 2697560



0062E0" 2694E560

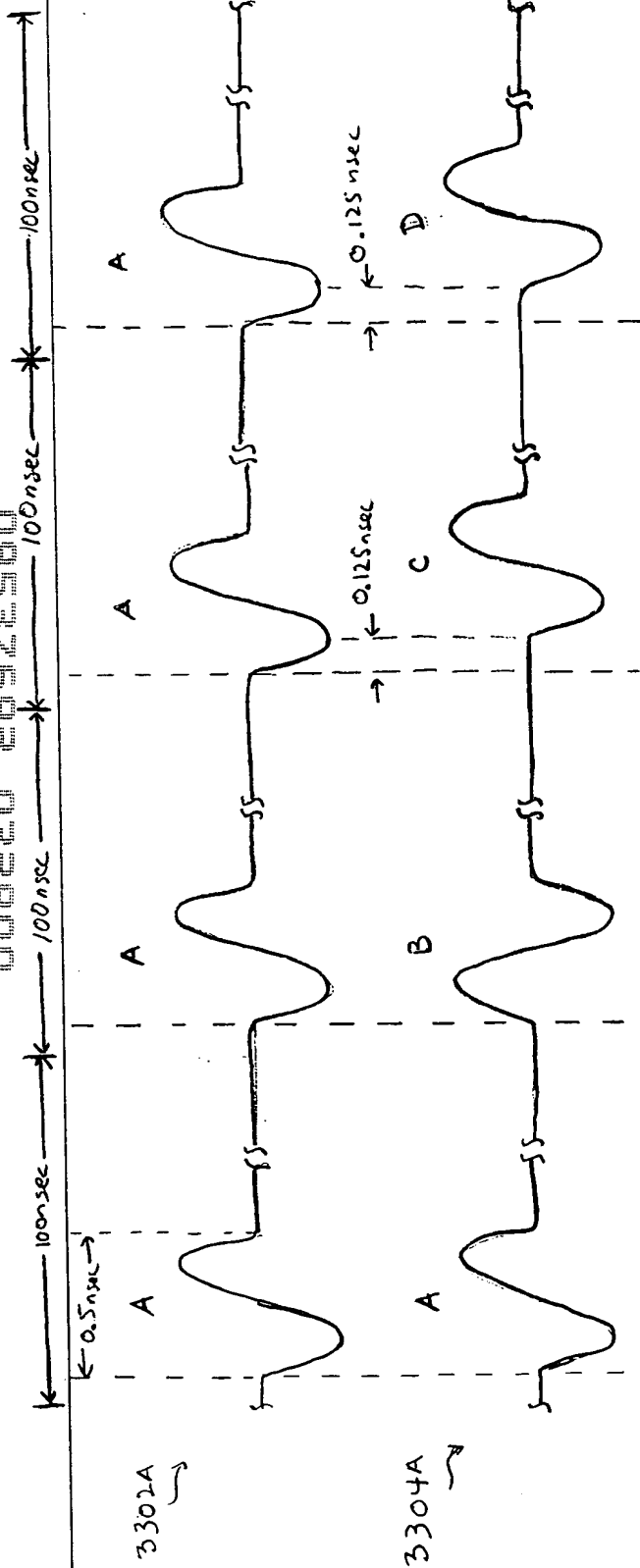


FIG. 33A

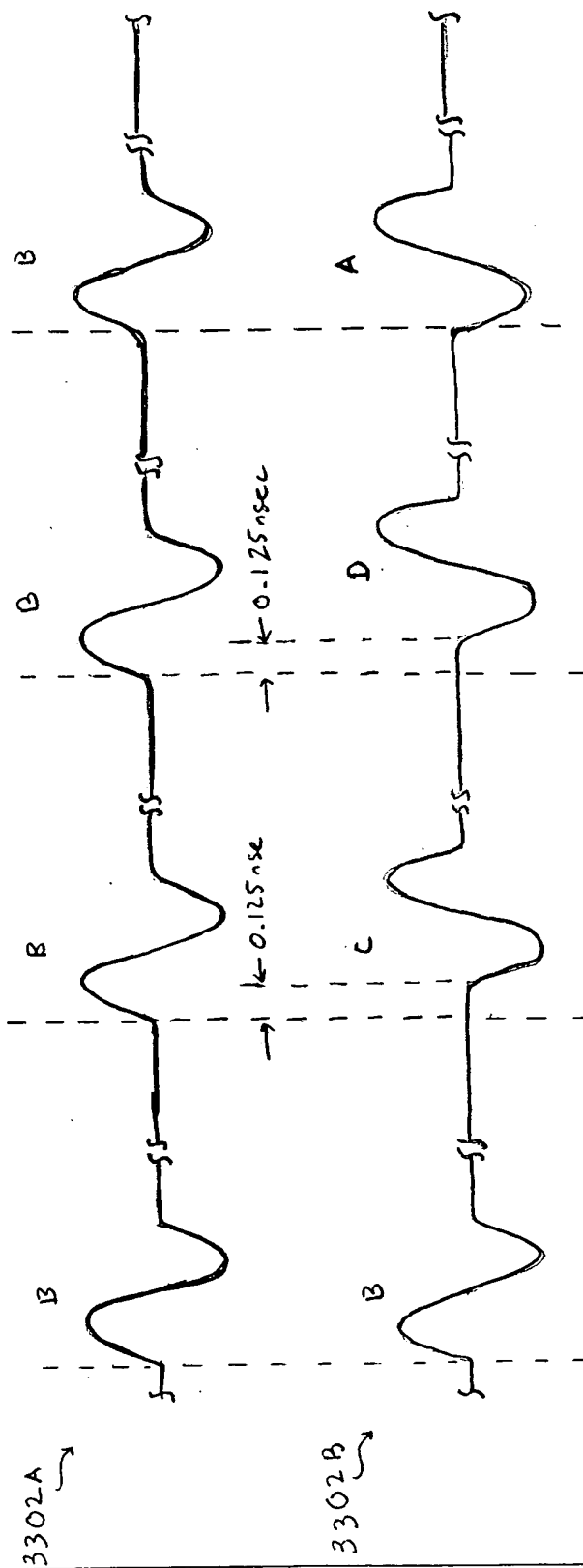


FIG. 33B